

**DESCRIPTION**

The Big River is located southeast of the town of Mendocino, and has approximately 5.5 river miles within the coastal zone. The Big River watershed drains approximately 180 square miles, and the estuary extends 8.3 miles. The Big River watershed supports municipal, industrial, agricultural, and recreational uses; and the cold freshwater habitat supports coho salmon and steelhead trout, both listed as threatened under the federal Endangered Species Act. Between 1852 and 2002, the watershed was intensely managed for commercial timber harvest, including the construction of an extensive road network and in-stream dams.

Big River is impaired by sediment and temperature. Impacts are attributable to several sources, including silviculture, roads, habitat modification, removal of riparian vegetation, and other Non Point Sources (NPS) of pollutants.



Big River Estuary

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For more photos, visit:  
[www.californiacoastline.org](http://www.californiacoastline.org).

**REASON FOR CCA IDENTIFICATION**

The Big River was one of the original CCAs identified in 1995 as an **impaired waterbody that flows into an estuary**.

**POLLUTED RUNOFF CONDITIONS**

	Top 5 Runoff Pollutants of Concern					Efforts to Address Pollutants (See next page)
	<u>2002 303(d)-Listed Pollutants</u> TMDL Priority (& Proposed Completion if available)		<u>Other Pollutants</u>			
Selected Coastal Zone Waterbodies	<u>Sediment</u>	<u>Temperature</u>	<u>?</u>	<u>?</u>	<u>?</u>	
Big River ▲	▲ High (2003)	▲ Low				
Big River Estuary ■						
Mendocino Bay ●						
Potential Sources of Pollutants in Coastal Waterbodies						
Forestry (Silviculture)	▲					a, b, c, g, h
➤ Logging Road Construction/Maintenance	▲					
Urban Areas						a, b, f, g
➤ Road Construction	▲					
➤ Land Development	▲					
Hydromodification						a, b, g
➤ Streambank Modification		▲				
Wetlands & Riparian Areas						a, g
➤ Removal of Riparian Vegetation		▲				
➤ Drainage/Filling of Wetlands		▲				

## Big River CCA

Potential Sources of Pollutants, continued	Sediment	Temperature	?	?	?	Efforts to Address Pollutants
Erosion/Siltation		▲				a, b
Habitat Modification		▲				a, e, g
Unspecified Nonpoint Source	▲	▲				a, d

### MAJOR EFFORTS TO IMPLEMENT NPS MANAGEMENT MEASURES

a)	<b>Total Maximum Daily Load (TMDL) Implementation Plan Development</b>				<a href="http://www.waterboards.ca.gov/northcoast/">http://www.waterboards.ca.gov/northcoast/</a>
	North Coast Regional Water Quality Control Board	Rebecca Fitzgerald	(707) 576-2650		<a href="mailto:rfitzgerald@waterboards.ca.gov">rfitzgerald@waterboards.ca.gov</a>
	➤ Provides a quantitative assessment of water quality problems, contributing sources of pollution, and pollutant load reductions or control actions needed to restore and protect the beneficial uses of an individual impaired waterbody.				
b)	<b>Sustained Yield Plan/ Frykman Gulch Migration Barrier Elimination and Erosion Control Project</b>				<a href="http://www.mrc.com/issues/sustained%5Fyield%5Fplan.html">http://www.mrc.com/issues/sustained%5Fyield%5Fplan.html</a>
	Mendocino Redwood Company		(707) 485-8731		
	➤ Replacing an undersized culvert in Frykman gulch that is a partial barrier to upstream salmonid migration; the culvert will be replaced with a bridge making 2800 ft. of stream accessible to Coho and steelhead.				
c)	<b>Timber Harvest Plan Review</b>				<a href="http://www.waterboards.ca.gov/northcoast/">http://www.waterboards.ca.gov/northcoast/</a>
	North Coast Regional Water Quality Control Board	Christine Wright Shacklett	(707) 576-2686		<a href="mailto:cwright-shacklett@waterboards.ca.gov">cwright-shacklett@waterboards.ca.gov</a>
	➤ Regulatory oversight of numerous projects in the Navarro River watershed; review proposed Timber Harvest plans; issue waivers or Waste Discharge Requirements (permits); Stormwater program regulates construction activities.				
d)	<b>Coastal Land Trust</b>				
		Rixanne Wehren	(707) 937-2709		<a href="mailto:rixanne@mcn.org">rixanne@mcn.org</a>
	➤ Habitat protection for the estuarine and riverine habitats; conducted water quality monitoring, salmon spawning surveys, wetland habitat inventory, and estuary fish surveys on Albion River.				
e)	<b>Mendocino County Resource Conservation District</b>				<a href="http://mrccd.ca.nacdn.org/">http://mrccd.ca.nacdn.org/</a>
		Janet Olave	(707) 468-9223		<a href="mailto:janet-olave@ca.nacdn.org">janet-olave@ca.nacdn.org</a>
	➤ The mission of MCRCD is to provide local leadership in the conservation of soil, water, and related natural resources through programs and partnerships with individuals, businesses, organizations and government				
f)	<b>Restructuring Mendocino County Water Agency</b>				<a href="http://cemendocino.ucdavis.edu/Watershed%2DNatural%5FResources">http://cemendocino.ucdavis.edu/Watershed%2DNatural%5FResources</a>
	University of California Cooperative Extension – Mendocino County	Greg Guisti	(707) 463-4495		<a href="mailto:cemendocino@ucdavis.edu">cemendocino@ucdavis.edu</a>
	➤ Project team adapted approaches of strategic and participatory planning to provide a process for interested parties in the county to provide input and direction for the restructuring of the Mendocino County Water Agency.				
g)	<b>Big River Preliminary Plan: Resource Assessment and Recommendations (April 2005)</b>				<a href="http://www.mendocinolandtrust.org/projects/brpp.shtml">http://www.mendocinolandtrust.org/projects/brpp.shtml</a>
	Mendocino Land Trust (MLT), and California Dept. of Parks and Recreation (DPR)	Matt Gerehart & Mike Wells	(707) 962-0470 (707) 937-5804		<a href="mailto:mgerhart@mendocinolandtrust.org">mgerhart@mendocinolandtrust.org</a> <a href="mailto:mwells@parks.ca.gov">mwells@parks.ca.gov</a>

## Big River CCA

<p>➤ In 2002, the MLT purchased 7,334 acres of the Big River watershed (including the 8.3-mile estuary) from Campbell-Hawthorne Timber Company and transferred ownership to DPR, to become part of the State Park system. Purpose of acquisition was to (1) preserve and protect the property's estuarine, wetlands, aquatic and other fish and wildlife resources, (2) support late seral forest characteristics and associated natural functions that maximize benefits to salmonid species and wildlife, and (3) provide public access consistent with the protection and enhancement of natural resources. The Coastal Conservancy provided funds toward the acquisition, and in 2003 funded preparation of the Big River Preliminary Plan: Resource Assessment and Recommendations (BRPP). The BRPP was developed with a broad Technical Advisory Committee, and contains recommendations to address sediment delivery to the system, improve aquatic function, eradicate invasive plants, restore riparian function, and preserve sensitive habitats.</p>			
<b>h)</b>	<p><b>Engineering Geologic Resource Assessment Big River State Park (prepared by the California Department of Conservation California Geologic Survey for Dept. of Parks &amp; Recreation, 2004).</b></p>		<p><a href="http://www.consrv.ca.gov/cgs/index.htm">http://www.consrv.ca.gov/cgs/index.htm</a></p>
California Geologic Survey		Mark Smelser	(707) 441-5743 <a href="mailto:msmelsr@conservation.ca.gov">msmelsr@conservation.ca.gov</a>
<p>➤ Geology and geomorphology study, and assessment of roads and watercourse crossings. Identified stream channel conditions and sediment sources, evaluated sediment yield from roads and culverts, and prioritized restoration sites.</p>			

### REGULATORY/PLANNING JURISDICTIONS

➤ Mendocino County, Planning Dept.	<a href="http://www.co.mendocino.ca.us/planning/">http://www.co.mendocino.ca.us/planning/</a>	Charles Hudson	(707) 964-5379	<a href="mailto:HUDSONC@co.mendocino.ca.us">HUDSONC@co.mendocino.ca.us</a>
➤ Mendocino County Water Agency		Roland Sanford	(707) 463-4589	<a href="mailto:sanfordr@co.mendocino.ca.us">sanfordr@co.mendocino.ca.us</a>
➤ Calif. Coastal Commission, Water Quality Unit	<a href="http://www.coastal.ca.gov/nps/npsndx.html">http://www.coastal.ca.gov/nps/npsndx.html</a>	Vanessa Metz	(707) 445-7873	<a href="mailto:vmetz@coastal.ca.gov">vmetz@coastal.ca.gov</a>
➤ North Coast Regional Water Quality Control Board, NPS Complaint Response	<a href="http://www.waterboards.ca.gov/northcoast/">http://www.waterboards.ca.gov/northcoast/</a>	Diana Henriouille-Henry	(707) 576-2350	<a href="mailto:dhenriouille-henry@waterboards.ca.gov">dhenriouille-henry@waterboards.ca.gov</a>
➤ State Water Resources Control Board	<a href="http://www.waterboards.ca.gov/">http://www.waterboards.ca.gov/</a>	Heidi Hall	(916) 323-2871	<a href="mailto:hhall@waterboards.ca.gov">hhall@waterboards.ca.gov</a>
➤ California Coastal Conservancy	<a href="http://www.coastalconservancy.ca.gov/">http://www.coastalconservancy.ca.gov/</a>	Karyn Gear	(510) 286-4171	<a href="mailto:kgear@scc.ca.gov">kgear@scc.ca.gov</a>
➤ Calif. Dept. of Forestry, Jackson Demonstration State Forest	<a href="http://www.fire.ca.gov/php/rsrsrc-mgt_jackson.php">http://www.fire.ca.gov/php/rsrsrc-mgt_jackson.php</a>	Marc Jameson	(707) 964-5674	<a href="mailto:marc.jameson@fire.ca.gov">marc.jameson@fire.ca.gov</a>
➤ Calif. Dept. of Fish & Game, Coastal Watershed Planning & Assessment Program	<a href="http://www.dfg.ca.gov/">http://www.dfg.ca.gov/</a>	Scott Downie	(707) 725-1070	<a href="mailto:sdownie@dfg.ca.gov">sdownie@dfg.ca.gov</a>
➤ Calif. Dept. of Fish & Game, Marine Region	<a href="http://www.dfg.ca.gov/">http://www.dfg.ca.gov/</a>	Pete Kalvass	(707) 964-9080	<a href="mailto:pkalvass@dfg.ca.gov">pkalvass@dfg.ca.gov</a>
➤ Calif. Dept. of Parks & Recreation	<a href="http://www.parks.ca.gov/">http://www.parks.ca.gov/</a>	Mike Wells	707-937-5804	<a href="mailto:mwells@parks.ca.gov">mwells@parks.ca.gov</a>
➤ Caltrans, Stormwater Management	<a href="http://www.dot.ca.gov/hq/env/stormwater/">http://www.dot.ca.gov/hq/env/stormwater/</a>	Alex Arevalo	(707) 445-6600	<a href="mailto:Alex_Arevalo@dot.ca.gov">Alex_Arevalo@dot.ca.gov</a>